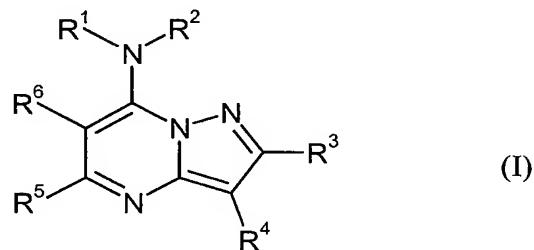


Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently amended) A pyrazolopyrimidine of the formula



in which

- R¹ represents optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted cycloalkyl or optionally substituted heterocyclyl,
- R² represents hydrogen or alkyl, or
- R¹ and R² together with the nitrogen atom to which they are attached represent an optionally substituted heterocyclic ring,
- R³ represents hydrogen or alkyl,
- R⁴ represents optionally substituted alkenyl or optionally substituted alkynyl,
- R⁵ represents halogen, CN cyano, alkyl, alkoxy or alkylthio and
- R⁶ represents alkyl, cycloalkyl or optionally substituted aryl.

2. (Currently amended) ~~The A pyrazolopyrimidine of the formula (I) as claimed in according to claim 1 in which~~

R^1 represents alkyl having 1 to 6 carbon atoms which may be is optionally mono- to pentasubstituted by identical or different substituents selected from the group consisting of halogen, cyano, hydroxyl, alkoxy having 1 to 4 carbon atoms and cycloalkyl having 3 to 6 carbon atoms, or

R^1 represents alkenyl having 2 to 6 carbon atoms which may be is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen, cyano, hydroxyl, alkoxy having 1 to 4 carbon atoms and cycloalkyl having 3 to 6 carbon atoms, or

R^1 represents alkynyl having 3 to 6 carbon atoms which may be is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen, cyano, alkoxy having 1 to 4 carbon atoms and cycloalkyl having 3 to 6 carbon atoms, or

R^1 represents cycloalkyl having 3 to 6 carbon atoms which may be is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen and alkyl having 1 to 4 carbon atoms, or

R^1 represents saturated or unsaturated heteroeyelyl heterocycle having 5 or 6 ring members and 1 to 3 heteroatoms, such as

nitrogen, oxygen and/or sulfur, where the heterocyclic heterocycle
may be is optionally mono- or disubstituted by halogen, alkyl
having 1 to 4 carbon atoms, cyano, nitro and/or or cycloalkyl
having 3 to 6 carbon atoms,

R² represents hydrogen or alkyl having 1 to 4 carbon atoms, or

R¹ and R² together with the nitrogen atom to which they are attached
represent a saturated or unsaturated heterocyclic ring having 3 to 6
ring members, where the heterocycle may contain a further
nitrogen, oxygen or sulfur atom as ring member and where the
heterocycle may be is optionally mono- to tri-substituted
substituted up to three times by fluorine, chlorine, bromine, alkyl
having 1 to 4 carbon atoms and/or or haloalkyl having 1 to 4
carbon atoms and 1 to 9 fluorine and/or or chlorine atoms,

R³ represents hydrogen or alkyl having 1 to 4 carbon atoms,

R⁴ represents alkenyl having 2 to 6 carbon atoms or alkynyl having 2
to 6 carbon atoms,

or

R⁴ represents alkenyl having 2 to 4 carbon atoms which is substituted
by carboxyl, methoxycarbonyl, ethoxycarbonyl, formyl or
halogen, or

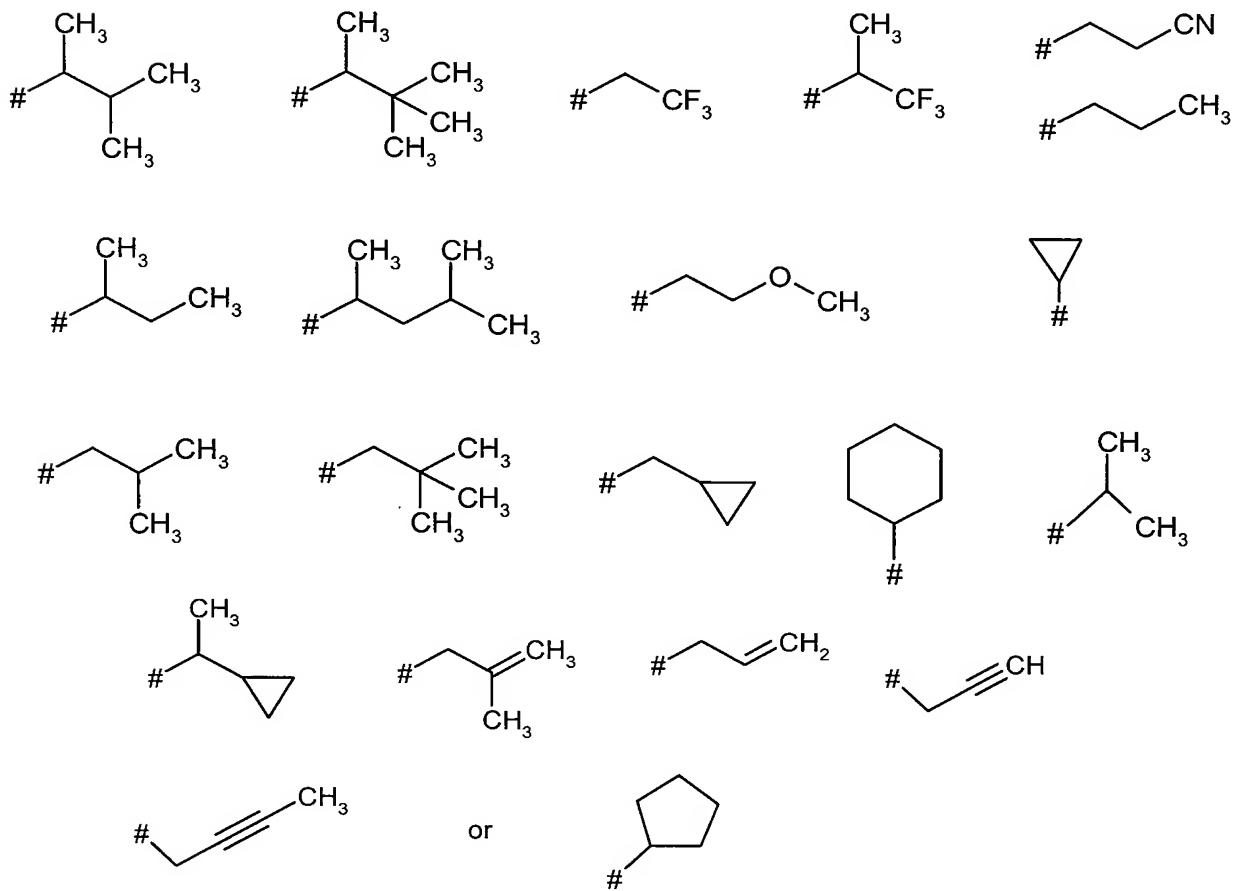
represents alkynyl having 2 to 4 carbon atoms which is substituted
by carboxyl, methoxycarbonyl or ethoxycarbonyl, formyl or
halogen,

R^5 represents fluorine, chlorine, bromine, CN cyano, alkoxy having 1 to 4 carbon atoms or alkylthio having 1 to 4 carbon atoms and

R^6 represents alkyl having 1 to 6 carbon atoms or represents cycloalkyl having 3 to 6 carbon atoms, or represents phenyl which ~~may be~~ is optionally mono- to tetrasubstituted by identical or different substituents.

3. (Currently amended) The A pyrazolopyrimidine of the formula (I) as claimed in according to claim 1 or 2 in which

R¹ represents a radical of the formula



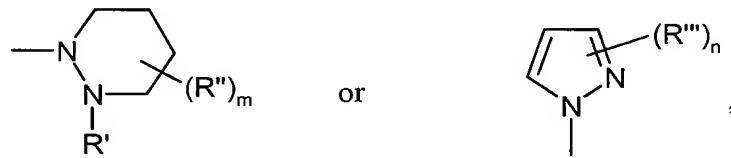
where # denotes the point of attachment, and stereoisomers thereof where for these radicals which may be present in optically active form each of the possible stereoisomers or mixtures may be present,

R^2 represents hydrogen, methyl, ethyl or propyl, or

R^1 and R^2 together with the nitrogen atom to which they are attached represent pyrrolidinyl, piperidinyl, morpholinyl, thiomorpholinyl, piperazinyl, 3,6-dihydro-1(2H)-piperidinyl or tetrahydro-1(2H)-pyridazinyl, where each of these radicals may be is optionally substituted by 1 to 3 fluorine atoms, 1 to 3 methyl groups and/or or trifluoromethyl,

or

R^1 and R^2 together with the nitrogen atom to which they are attached represent a radical of the formula



in which

R' represents hydrogen or methyl,

R'' represents methyl, ethyl, fluorine, chlorine or trifluoromethyl,

m represents the number 0, 1, 2 or 3, where R'' represents identical or different radicals if m represents 2 or 3,

R''' represents methyl, ethyl, fluorine, chlorine or trifluoromethyl

and

n represents the number 0, 1, 2 or 3, where Rⁿ represents identical or different radicals if n represents 2 or 3,

R³ represents hydrogen, methyl, ethyl, propyl or isopropyl,

R⁴ represents straight-chain or branched alkenyl having 2 to 5 carbon atoms, where each of these radicals ~~may be~~ is optionally monosubstituted by carboxyl, methoxycarbonyl, ethoxycarbonyl, formyl or halogen, or

R⁴ represents alkynyl having 2 to 5 carbon atoms, where each of these radicals ~~may be~~ is optionally monosubstituted by carboxyl, methoxycarbonyl or ethoxycarbonyl,

R⁵ represents fluorine, chlorine, CN cyano, methoxy, ethoxy, methylthio or ethylthio,

and

R⁶ represents straight-chain or branched alkyl having 1 to 4 carbon atoms, ~~represents~~ cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl, or

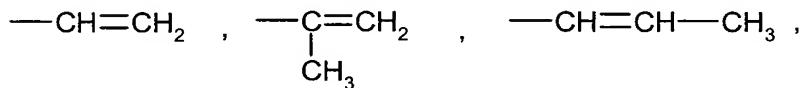
R⁶ represents phenyl which ~~may be~~ is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, nitro, formyl, methyl, ethyl, propyl n-or i-propyl, butyl n-, i-, s- or t- ~~butyl~~, allyl, propargyl, methoxy, ethoxy, propoxy n-or i-propoxy, methylthio, ethylthio, propylthio n-or i-propylthio, methylsulfinyl, ethylsulfinyl, methylsulfonyl, ethylsulfonyl,

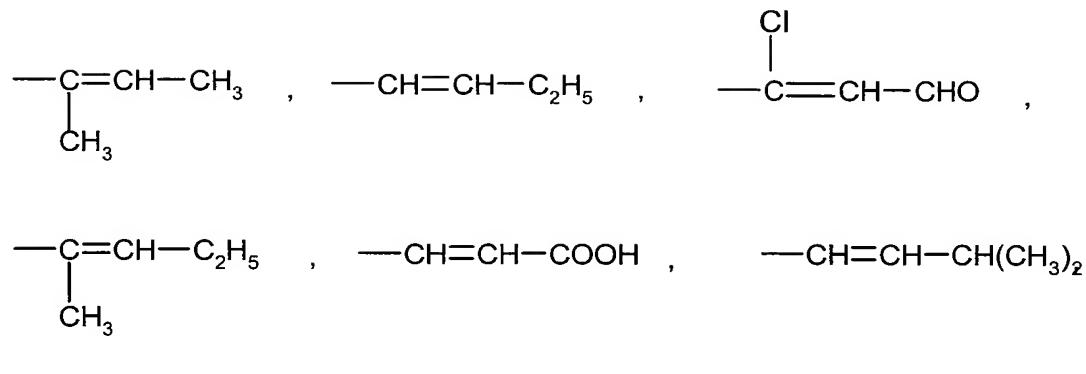
allyloxy, propargyloxy, trifluoromethyl, trifluoroethyl, difluoromethoxy, trifluoromethoxy, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethylthio, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl, trichloroethynloxy, trifluoroethynloxy, chloroallyloxy, iodopropargyloxy, methylamino, ethylamino, propylamino n- or i-propylamine, dimethylamino, diethylamino, acetyl, propionyl, acetyloxy, methoxycarbonyl, ethoxycarbonyl, hydroximinomethyl, hydroximinoethyl, methoximinomethyl, ethoximinomethyl, methoximinoethyl, ethoximinoethyl, cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl, 2,3-attached 1,3-propanediyl, methylenedioxy (-O-CH₂-O-) or 1,2-ethylenedioxy (-O-CH₂-CH₂-O-), where each of these radicals may be is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, methyl, ethyl, propyl n-propyl, i-propyl and trifluoromethyl.

4. (Currently amended) The A pyrazolopyrimidine of the formula (I) according to ~~one or more of claims 1 to 3~~ claim 1 in which

~~R¹, R², R³ and R⁵ have the particularly preferred meanings given above,~~

R⁴ represents a radical of the formula





-CH=CH-CO-OCH₃, -CH=CH-CO-OC₂H₅, -C≡CH, -C≡C-CH₃, -C≡C-C₂H₅, -C≡C-C₃H₇, -C≡C-COOH, -C≡C-CO-OCH₃ or -C≡C-CO-OC₂H₅, and

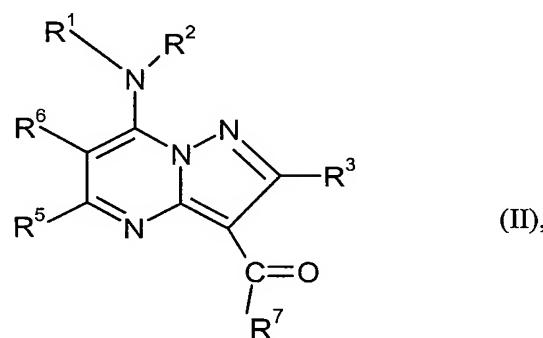
R⁶ represents methyl, ethyl, propyl, isopropyl, n-butyl, tert-butyl, cyclopropyl, cyclopentyl or cyclohexyl, or

R⁶ represents 2,4-, 2,5- or 2,6-disubstituted phenyl or, 2-substituted phenyl or represents 2,4,6-trisubstituted phenyl, where the substituents are selected from the group consisting of fluorine, chlorine, bromine, cyano, nitro, formyl, methyl, ethyl, propyl n- or i-propyl, butyl n-, i-, s- or t-butyl, allyl, propargyl, methoxy, ethoxy, propoxy n- or i-propoxy, methylthio, ethylthio, propylthio n- or i-propylthio, methylsulfinyl, ethylsulfinyl, methylsulfonyl, ethylsulfonyl, allyloxy, propargyloxy, trifluoromethyl, trifluoroethyl, difluoromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, trifluorochloromethylthio, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl, trichloroethynloxy, trifluoroethynloxy, chloroallyloxy,

iodopropargyloxy, methylamino, ethylamino, propylamino n-or i-propylamino, dimethylamino, diethylamino, acetyl, propionyl, acetyloxy, methoxycarbonyl, ethoxycarbonyl, hydroximinomethyl, hydroximinoethyl, methoximinomethyl, ethoximinomethyl, methoximinoethyl, ethoximinoethyl, cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl,
2,3-attached 1,3-propanediyl, methylenedioxy (-O-CH₂-O-) or 1,2-ethylenedioxy (-O-CH₂-CH₂-O-), where each of these radicals may be is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, methyl, ethyl, propyl n-propyl, i-propyl and trifluoromethyl.

5. (Currently amended) A process for preparing pyrazolopyrimidines of the formula (I) as claimed in according to claim 1, characterized in that comprising

- (a) reacting a pyrazolopyrimidines pyrazolopyrimidine of the formula

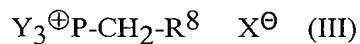


in which

R¹, R², R³, R⁵ and R⁶ are as defined above in claim 1, and

R^7 represents hydrogen or alkyl

are reacted with a phosphonium salts salt of the formula



in which

Y represents alkyl, cycloalkyl, aralkyl or phenyl,

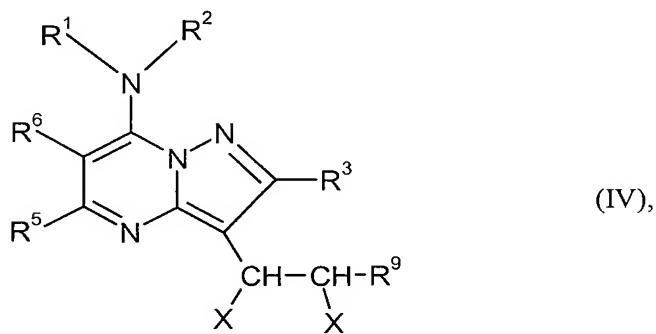
X represents an anion, such as bromide, and

R^8 represents hydrogen or optionally substituted alkyl

in the presence of a base in the presence of and a diluent,

or

(b) reacting a pyrazolopyrimidines pyrazolopyrimidine of the formula



in which

R^1 , R^2 , R^3 , R^5 and R^6 are as defined above, in claim 1,

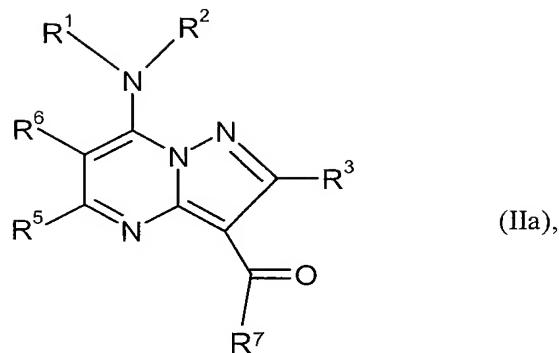
R^9 represents hydrogen or optionally substituted alkyl,

X represents chlorine or bromine

are reacted with a strong bases base in the presence of a diluent,

or

(c) reacting a pyrazolopyrimidines pyrazolopyrimidine of the formula

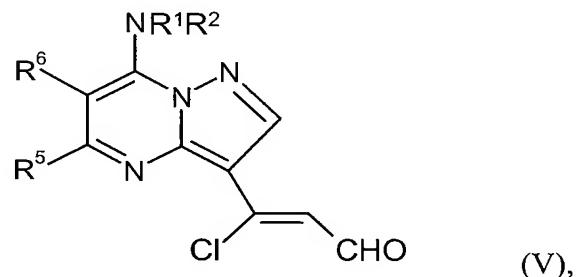


in which

R¹, R², R³, R⁵, R⁶ and R⁷ are as defined above in claim 1, and

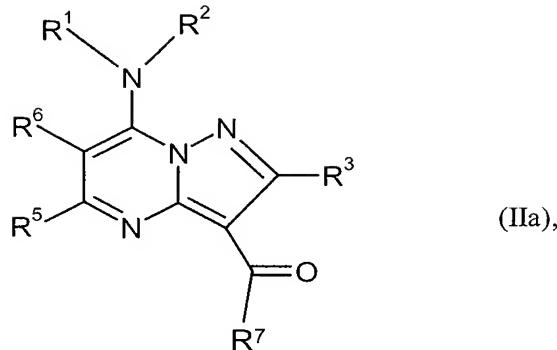
R⁷ represents hydrogen or alkyl

are initially reacted with phosphorus oxychloride in the presence of dimethylformamide and then further with a base to give a compound of the formula (V)



or

(d) reacting a pyrazolopyrimidines pyrazolopyrimidine of the formula



in which

R¹, R², R³, R⁵, R⁶ and R⁷ are as defined above, in claim 1, and

R⁷ represents hydrogen or alkyl

are reacted with a Grignard compounds compound

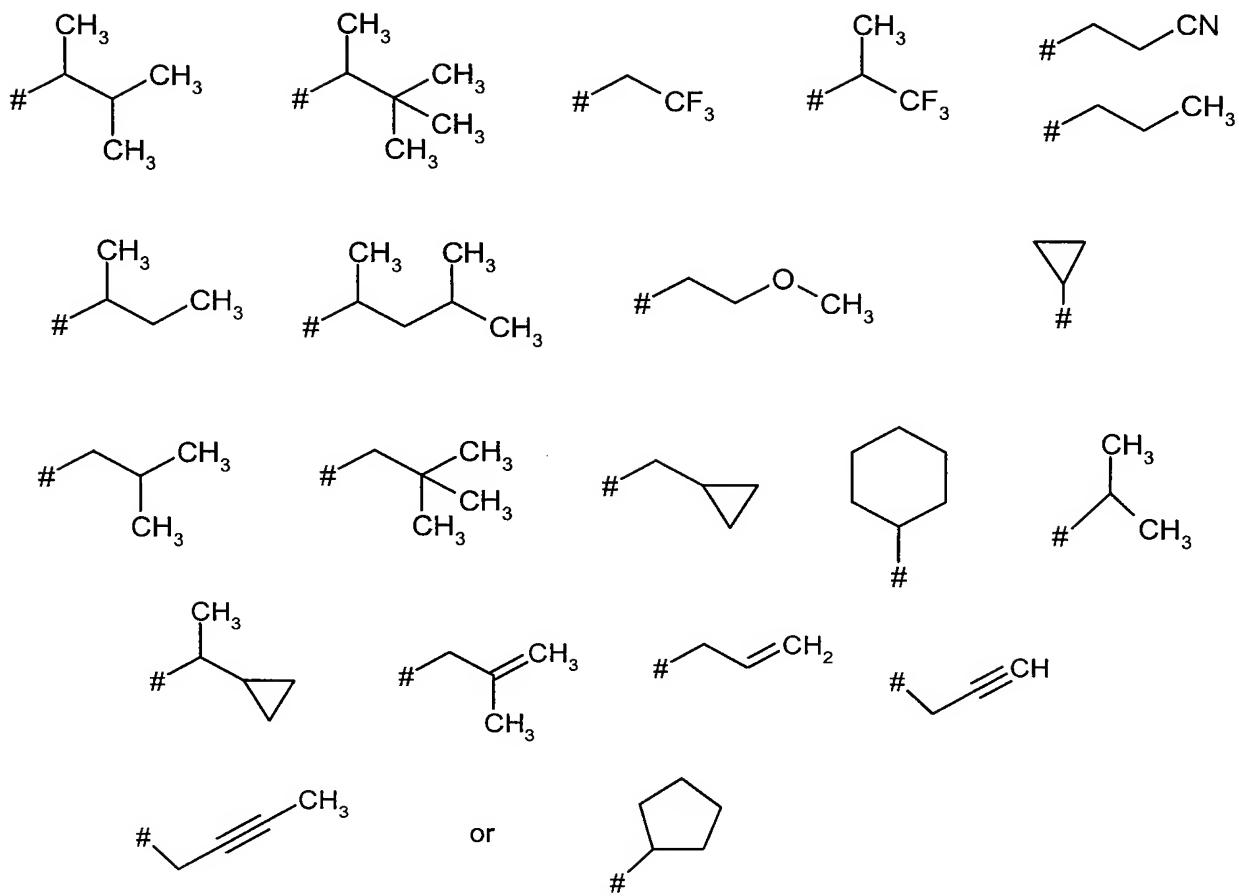
R⁸-CH₂-Mg X,

where R⁸ is as defined above represents hydrogen or optionally substituted alkyl, and then an acid. acidified.

6. (Currently amended) A composition for controlling unwanted microorganisms, characterized in that it comprises comprising a mixture of at least one pyrazolopyrimidine of the formula (I) as claimed in one or more of claims 1 to 4 according to claim 1, in addition to and one or more extenders and/or or surfactants.
7. (Currently amended) The composition as claimed in according to claim 6, further comprising at least one further fungicidally or insecticidally active compound.
8. (Canceled)

9. (Currently amended) A method for controlling unwanted microorganisms, characterized in that comprising contacting unwanted microorganisms or their habitat with a pyrazolopyrimidines pyrazolopyrimidine of the formula (I) according to one or more of claims 1 to 4 claim 1 are applied to the unwanted microorganisms and/or their habitat.
10. (Currently amended) The A process for preparing compositions for controlling unwanted microorganisms, characterized in that comprising mixing pyrazolopyrimidines a pyrazolopyrimidine of the formula (I) according to one or more of claims 1 to 4 claim 1 are mixed with an extender, surfactant extenders and/or surfactants or combination thereof.
11. (New) A pyrazolopyrimidine according to claim 1 in which

R^1 represents a radical of the formula



where # denotes the point of attachment and stereoisomers thereof,

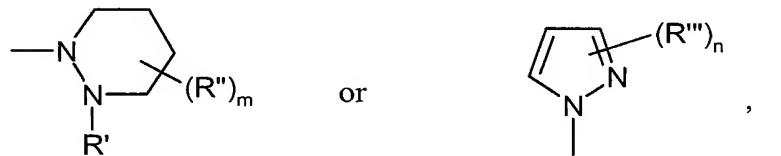
R^2 represents hydrogen, methyl, ethyl or propyl, or

R^1 and R^2 together with the nitrogen atom to which they are attached

represent pyrrolidinyl, piperidinyl, morpholinyl, thiomorpholinyl, piperazinyl, 3,6-dihydro-1(2H)-piperidinyl or tetrahydro-1(2H)-pyridazinyl, where each of these radicals is optionally substituted by 1 to 3 fluorine atoms, 1 to 3 methyl groups or trifluoromethyl,

or

R^1 and R^2 together with the nitrogen atom to which they are attached represent a radical of the formula



in which

R' represents hydrogen or methyl,

R'' represents methyl, ethyl, fluorine, chlorine or trifluoromethyl,

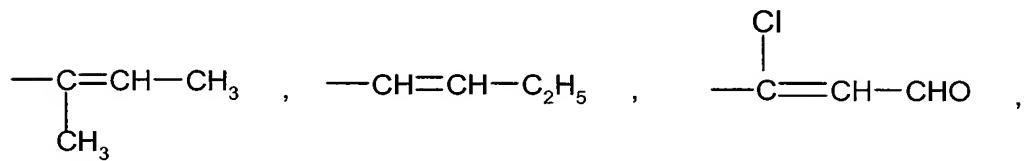
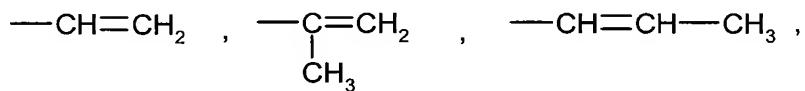
m represents the number 0, 1, 2 or 3, where R'' represents identical or different radicals if m represents 2 or 3,

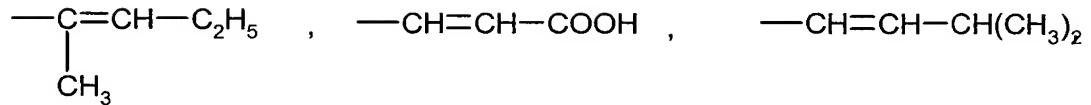
R''' represents methyl, ethyl, fluorine, chlorine or trifluoromethyl and

n represents the number 0, 1, 2 or 3, where R''' represents identical or different radicals if n represents 2 or 3,

R^3 represents hydrogen, methyl, ethyl, propyl or isopropyl,

R^4 represents a radical of the formula





-CH=CH-CO-OCH₃, -CH=CH-CO-OC₂H₅, -C≡CH, -C≡C-CH₃, -C≡C-C₂H₅, -C≡C-C₃H₇, -C≡C-COOH, -C≡C-CO-OCH₃ or -C≡C-CO-OC₂H₅

and

R⁶ represents methyl, ethyl, propyl, isopropyl, n-butyl, tert-butyl, cyclopropyl, cyclopentyl or cyclohexyl, or

R⁶ represents 2,4-, 2,5- or 2,6-disubstituted phenyl, 2-substituted phenyl or 2,4,6-trisubstituted phenyl, where the substituents are selected from the group consisting of fluorine, chlorine, bromine, cyano, nitro, formyl, methyl, ethyl, propyl, butyl, allyl, propargyl, methoxy, ethoxy, propoxy, methylthio, ethylthio, propylthio, methylsulfinyl, ethylsulfinyl, methylsulfonyl, ethylsulfonyl, allyloxy, propargyloxy, trifluoromethyl, trifluoroethyl, difluoromethoxy, trifluoromethoxy, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethylthio, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl, trichloroethynyl, trifluoroethynyl, chloroallyloxy, iodopropargyloxy, methylamino, ethylamino, propylamino, dimethylamino, diethylamino, acetyl, propionyl, acetoxy, methoxycarbonyl, ethoxycarbonyl, hydroximinomethyl, hydroximinoethyl, methoximinomethyl, ethoximinomethyl,

methoximinoethyl, ethoximinoethyl, cyclopropyl, cyclobutyl,
cyclopentyl and cyclohexyl,
2,3-attached 1,3-propanediyl, methylenedioxy (-O-CH₂-O-) or 1,2-
ethylenedioxy (-O-CH₂-CH₂-O-), where each of these radicals is
optionally mono- or polysubstituted by identical or different
substituents selected from the group consisting of fluorine,
chlorine, methyl, ethyl, propyl and trifluoromethyl.